

PATENT

AMENDMENTS TO THE CLAIMS

Following is a complete set of claims as amended with this Response. This complete set of claims excludes cancelled claim 14 and includes amended claims 1, 9, and 15.

1. (Currently Amended) An implantable lead for transmitting electrical signals between a proximal end and a distal end, the lead comprising:
 - a lead body defining at least one longitudinally-extending lumen; and
 - a plurality of individual electrical conductors contained in the lumen of the lead body and extending between the proximal and distal ends, the plurality of individual conductors sharing a common insulating coating that insulates the plurality of individual conductors from each other, and each of the plurality of individual conductors comprise a same electrically conductive material.
2. (Original) The lead of claim 1 in which:
 - each of the plurality of individual electrical conductors comprises a multifilar cable conductor.
3. (Original) The lead of claim 1 in which:
 - each of the plurality of individual electrical conductors comprises a non-coiled monofilament wire.
4. (Original) The lead of claim 1 in which:
 - the common insulating coating electrically isolates the plurality of conductors from each other.
5. (Original) The lead of claim 4 in which:
 - the common insulating coating includes a bridging portion extending between individual conductors.

PATENT

6. (Original) The lead of claim 5 in which:
the bridging portion of the common insulating coating is perforated to impart additional flexibility to the coating.
7. (Original) The lead of claim 1 in which:
the conductors are in electrical contact along their lengths.
8. (Original) The lead of claim 1 in which:
the plurality of electrical conductors and the common insulating coating comprise a conductor assembly.
9. (Currently Amended) ~~The lead of claim 8 in which:~~ An implantable lead for transmitting electrical signals between a proximal end and a distal end, the lead comprising:
a lead body defining at least one longitudinally-extending lumen; and
a plurality of individual electrical conductors contained in the lumen of the lead body and extending between the proximal and distal ends, the plurality of individual conductors sharing a common insulating coating that insulates the plurality of individual conductors from each other, the plurality of electrical conductors and the common insulating coating comprise a conductor assembly, and the conductor assembly has a helical configuration defining a longitudinally-extending passageway for receiving a stylet or guide wire for placing the distal end of the lead.
10. (Original) The lead of claim 9 in which:
the common insulating coating has, in cross section, a generally oval shape having a longer dimension extending in the longitudinal direction.
11. (Original) The lead of claim 10 in which:
the plurality of individual conductors are spaced apart in the longitudinal direction within the common insulating coating.

PATENT

12. (Original) The lead of claim 8 in which:
the conductor assembly has a tubular configuration.
13. (Original) The lead of claim 12 in which:
the plurality of individual conductors are embedded within the common
insulating coating in spaced-apart, parallel relationship.
14. (Cancelled)
15. (Currently Amended) An implantable lead for transmitting electrical
signals between a multiple-contact electrical connector at a proximal end of the lead
and a plurality of electrodes disposed along a distal end of the lead, the electrical
connector being adapted to be received by a receptacle in an implantable medical
device, the lead comprising:
a longitudinally-extending lead body comprising an insulating housing
defining a plurality of longitudinally-extending lumens, at least one of the lumens
containing an electrical conductor assembly comprising at least two electrical multifilar
cable conductors sharing a common insulating coating, wherein the common insulating
coating insulates the at least two electrical cable conductors from each other, the
electrical cable conductors connecting at least one of the contacts on the electrical
connector with at least one of the electrodes, and the at least two electrical cable
conductors comprising a same electrically conductive material.

PATENT

16. (Original) The lead of claim 15 in which:
the common insulating coating electrically isolates the at least two cable conductors from each other, a first of the at least two cable conductors electrically connecting a first contact on the electrical connector with a first one of the plurality of electrodes, and a second of the at least two cable conductors electrically connecting a second contact on the electrical connector with a second one of the plurality of electrodes.
17. (Original) The lead of claim 16 in which:
the common insulating coating includes a bridging portion extending between adjacent ones of the at least two electrical cable conductors.
18. (Original) The lead of claim 17 in which:
the bridging portion of the common insulating coating is perforated to impart additional flexibility to the coating.
19. (Original) The lead of claim 15 in which:
the at least two cable conductors are in electrical contact along their lengths, the at least two cable conductors electrically connecting one of the contacts on the electrical connector with one of the plurality of electrodes.
20. (Original) The lead of claim 15 in which:
each of at least two of the lumens contain an electrical conductor assembly, each of the conductor assemblies comprising at least two electrical multifilar cable conductors sharing a common insulating coating, the cable conductors of one of the conductor assemblies connecting at least one of the contacts on the electrical connector with at least one of the electrodes, and the cable conductors of the other of the conductor assemblies connecting at least one of the remaining contacts on the electrical connector with at least one of the remaining electrodes.